## **REMARKS**

Applicant respectfully submits this Amendment and Response in reply to the Official Action dated May 12, 2010. Applicant believes that this Amendment and Response is fully responsive to the Official Action for at least the reasons set forth herein.

At the onset, Applicant would like to thank the Examiner for indicating that claims 6-9, 18-21 and 30-33 have allowable subject matter and would be allowed if rewritten in independent form.

Additionally, Applicant would like to thank the Examiner for conducting a telephone interview with Applicant's representative. In sum, Applicant's representative discussed the differences between the claimed invention and the AAPA. The Examiner noted that he interpreted the claimed transmission signal to encompass  $S_{TS1}$  through  $S_{TSK}$  as depicted in Fig. 4. Applicant's representative noted that the claimed invention is directed to having a different correspondence for each transmission signal output from the transmitter via the plurality of antenna. The Examiner agreed that AAPA fails to teach a different correspondence for each transmission antenna.

Accordingly, claims 1, 11, 13, 23, 25, 35 and 37 have been amended for clarification. Notably, each of the independent claims have been amended to recite, *inter alia*, that the correspondence is different for each of said plurality of transmission antennas, where each transmission signal output has a different correspondence. Claims 11, 23, and 35 have been amended to recite, *inter alia*, the use of a different frequency hopping pattern for each of said plurality of transmission antennas, where each transmission signal output has a different frequency hopping pattern.

Additionally, Applicant notes that the preamble of claim 37 has been amended to recite a computer readable recording medium tangibly embodiment a program of instructions executable by a machine for performing a resource assignment method for a wireless communication system using a wireless communication apparatus having a plurality of transmission and reception antennas, the resource assignment method comprising the steps of. No new matter has been added to the application by way of the aforementioned amendments to the claims. Notably, Applicant respectfully directs the Examiner's attention to Figs. 8, 9, 11 and 13. Applicant notes that the identified figures are presented by way of examples for the Examiner's convenience and are not intended to be an exhaustive list.

In the Official Action, claim 37 was rejected under 35 U.S.C. § 101 because the claim was allegedly directed to non-statutory subject matter. Without acquiescing to the propriety of the rejection, Applicant submits that the above-identified amendment to claim 37 obviates the rejection.

Withdrawal of the rejection is respectfully requested.

Claims 1-3, 10-15, 22-27 and 34-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP2003032226, Yoshii in view of the AAPA in the background of the application. Claims 4, 5, 16, 17, 28 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshii in view of the AAPA and in further view of Ue et al., U.S. Patent No. 6,611,676.

Applicant submits that all of the pending claims are patentable over the cited references based at least upon the reasons discussed in the telephone interview and identified above, namely the cited references, whether taken alone or in any proper combination, fail to teach or suggest using a correspondence that is different for each of said plurality of transmission antennas, where

each transmission signal output has a different correspondence, as recited, inter alia, in each of

the independent claims. Therefore, independent claims 1, 13, 25 and 37 are patentable over the

cited references. The dependent claims are also patentable over the cited references based at

least upon the above-identified analysis and their dependency from independent claims 1, 13, 25,

37, respectively. Moreover, in addition to the above-identified reasons, Applicant further

submits that the cited references, whether taken alone or in any proper combination thereof, fail

to teach or suggest the use of a different frequency hopping pattern for each of said plurality of

transmission antennas, where each transmission signal output has a different frequency hopping

pattern, as recited, *inter alia*, in claims 11, 23 and 35.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections

of claims 1-5, 10-17, 22-29, and 34-37 pursuant to 35 U.S.C. § 103(a) as the claims are not

obvious over the cited references.

Conclusion

In view of the above, it is respectfully submitted that the subject application is in

condition for allowance. Accordingly, it is respectfully requested that the subject application be

allowed and a Notice of Allowability issued. If the Examiner believes that a telephone

conference with Applicant's attorneys would be advantageous to the disposition of this case, the

Examiner is requested to telephone the undersigned.

Respectfully submitted,

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